

**AMERICAN NATIONAL STANDARDS:  
THE CONSENSUS PROCESS**

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## INTRODUCTION

Since the early 20<sup>th</sup> Century, technical and professional societies have developed standards within their areas of expertise addressing aspects of their industries which they feel would benefit from a degree of standardization. From the beginning, the use of these standards was strictly voluntary. It did not take jurisdictional authorities long, however, to recognize that application of these voluntary standards enhanced public safety, as well as leveling the playing field in trade. Hence, laws were passed mandating their use. Purchasers of goods and services also recognized the advantages of standardization, and began requiring the use of standards in their procurement contracts. But how do jurisdictions and purchasers know that the standard they are mandating is a broad-based industry standard, or a narrowly focused set of rules which only apply to one company or institution, thereby giving them an unfair advantage? The answer is "consensus", and a unified approach in achieving it.

## THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

The American National Standards Institute (ANSI) is recognized by jurisdictional authorities, purchasers, and standards writing organizations themselves as the central body which identifies and coordinates a single set of voluntary standards, called American National Standards (ANS). ANSI approval of a voluntary standard indicates that due process and openness have been followed in the approval process, and that those directly & materially affected by standards have had an opportunity to participate in the process and that consensus has been achieved. ANSI coordination ensures that needs for American National Standards are identified and fulfilled without conflict or duplication. It is not within the scope of this paper to describe the history and evolution of ANSI, but, instead, I will focus on the description of the consensus process, and how it is achieved.

## THE CONSENSUS PROCESS

According to ANSI, "Consensus" means substantial agreement has been reached by directly and materially affected interest categories. This signifies the concurrence of more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that an effort be made toward their resolution."<sup>1</sup>

The consensus process starts with what ANSI calls Due Process. Basically, due process means that any entity with a direct and material interest has the right to participate in the development of a voluntary standard by delineating a position, having the position considered, and being able to appeal a decision. In order to achieve due process, the following are among the minimum requirements that ANSI considers.

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<sup>1</sup> "Procedures for the Development and Coordination of American National Standards", The American National Standards Institute, Approve by the ANSI Board of Governors, April 1998.

**Openness:** The development activity must be open to all individuals and organizations with direct and material interest in the activity. There cannot be unreasonable financial barriers imposed, nor can membership in an organization be required. Technical qualifications must be reasonable.

**Balance:** A balance of interests should be present without being dominated by any one special interest category. While ANSI does not apply a test for balance, their rule-of-thumb for standards dealing with safety standards is that no single interest category should constitute more than one-third of the membership of the committee drafting the standard. Likewise, the membership of a committee dealing with product standards should not contain more than a majority of any single interest category. Although interest categories are dependent on the nature of the standard being developed, the three broad categories that must be considered are: Producers; Users; and General Interest. These categories can be broken down into subcategories depending on the nature of the standard.

## **ACCREDITATION OF AMERICAN NATIONAL STANDARDS DEVELOPERS**

In order to be accredited by ANSI as a developer of American National Standards (ANS), a developer must establish procedures ensuring that due process and consensus is achieved. There are three methods for developing evidence that consensus will be reached: Accredited Organization Method; Accredited Standards Committee Method; and Accredited Sponsor using the Canvass Method.

- **Accredited Organizations:** This method is most often used by societies or organizations for whom standards development is but one of their chartered activities. Membership on the consensus body is usually provided by members of the society or organization; although, it must be open to all interested parties. This is the only method that requires the developer to develop its own procedures for ensuring consensus. While the developer's procedures must meet the general requirements of ANSI's procedures, enough flexibility to accommodate the developer's organizational structure is allowed.
- **Accredited Standards Committees:** This method applies to standing committees created expressly for the purpose of developing one or more standards. These standards are usually broad in scope and may affect multiple societies or organizations with similar interests. The committee provides a forum for discussion and consensus by parties who are not members of a single society or organization. These committees are administered by a secretariat providing oversight of the committee's activities. The secretariat also ensures compliance with the committee's procedures. An Accredited Standards Committee may develop its own consensus procedures meeting ANSI's requirements, or it may adopt model procedures for Accredited Standards Committees developed by ANSI.
- **Accredited Sponsors using the Canvass Method:** This method is used by societies or organizations who develop a draft American National Standard "in-house" and submit the draft to those parties identified, to the degree possible, as being directly and materially affected by the draft ANS. The submission is via letter ballot (canvass). Unlike the other two methods in which the due process determining consensus is achieved during the development of the standard, due process in the canvass method is achieved after the draft

standard has been developed. Standards developers using this method must use procedures provided by ANSI.

A developer may apply for accreditation in one or more methods, and ANSI has procedure requirements for each.

## **APPROVAL OF VOLUNTARY STANDARDS AS AMERICAN NATIONAL STANDARDS**

Once accreditation has been received, a developer achieves ANSI approval of voluntary standards in one of two ways: approval by the ANSI Board of Standards Review (BSR), or approval without BSR review. In the former, the developer submits the draft standard to the BSR for approval, together with evidence that due process was used in the development of the standard, and that negative votes or review comments have been resolved in accordance with the developer's (ANSI-approved) procedures. Standards which do not have negative votes or comments are approved administratively by the BSR.

An accredited standards developer may apply to ANSI to be allowed to designate its standards as ANS without having to go through BSR review. The accredited developer must demonstrate a "consistent record of successful voluntary standards development."<sup>2</sup> This process is somewhat akin to the ISO 9000 registration process in that there are criteria which the developer must meet, such as documented evidence that the developer has shown participation in development of voluntary standards for five years; the BSR has approved at least ten standards, or standards totaling 100 pages; and none of the standards has been rejected as ANS by ANSI due to failure of the developer to follow the developer's ANSI-approved procedures for standards development.

## **THE NEXT STEPS**

The process does not stop with approval of a standards document. Requirements which must be addressed in the developer's procedures are provided by ANSI for:

- ANS Designation covering the use of the ANSI logo, and establishment of the unique alphanumeric document designator;
- Publication of the ANS as soon as possible after approval, but at least within six months. Waivers can be granted on a case-by-case basis. The developer shall publish the document, or transfer rights of publication to ANSI.
- Maintenance of the Standard. This can be either periodic maintenance, or continuous maintenance. Periodic maintenance means that within four years of approval, the developer must take steps (according to the developer's procedures) to reaffirm, revise, or withdraw the ANS. Continuous maintenance simply means that the developer has procedures in place providing for periodic publication of Standard revisions according to the consensus process used in the initial development. Like Periodic Maintenance, the

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<sup>2</sup> Ditto

time interval is four years. If no revisions are necessary, the developer must take steps to reaffirm or withdraw the ANS.

- Interpretations may only be issued by the accredited developer responsible for maintenance of the Standard. ANSI does not issue interpretations.

## CONCLUSION

In addition to the obvious advantages to using American National Standards such as establishing and maintaining a level playing field, and uniform application of principles, another subtle benefit exists for those of us in the engineering profession. We are all familiar with the term "good engineering practice". The best definition of this term was formulated for me about thirty years ago. It goes something like this: Good Engineering Practice = Voluntary Consensus Standard. All one has to do is pick up a consensus code or standard, open it to the page which lists the individuals who drafted it, and there you will find is a who's-who of experts possessing hundreds of man-years of experience in the topic addressed. By rigidly ensuring that the consensus process exists, one can be comfortable in the knowledge that an American National Standard represents the "best practices" available.